

Date: Tuesday, 10/3/2006 2:49:28 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: BRACKET ASSEMBLY		
Job Number	: 28825					
Estimate Number	: 10278					
P.O. Number	: N/A			Part Number	: D3121141	
This Issue	: 10/3/2006 S.O. No. : N/A			Drawing Number	: D3121 REV D	
Prsht Rev.	: NC			Project Number	: N/A	
First Issue	: N/A			Drawing Revision	: D	
Previous Run	: 27368			Material	: N/A	
Written By	: <i>[Signature]</i>			Due Date	: 10/30/2006	
Checked & Approved By	: <i>[Signature]</i>			Qty:	24	Um: Each
Comment	: Est Rev:Pick:A 04.02.18 New issue KJ/DS					

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	M174B1000X02000	17-4 SS Bar 
		Comment: Qty.: 0.5775 f(s)/Unit Total: 13.8600 f(s) Material: 17-4 SS Bar per AMS 5604/5643 (M17-4-B1.000x02.000) Identify for D3121-111 Batch: <i>M100843 X22</i>
2.0	BAND SAW	BAND SAW 
		Comment: BAND SAW Cut blanks: (1.000" x 2.000") 6.600" long
3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1 
		Comment: HAAS CNC VERTICAL MACHINING #1 1-Machine D3121-111 as per Folio FA361 and Dwg D3121 Identify as D3121-111 2-Deburr 3-Scribe batch number
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE 
		Comment: INSPECT PARTS AS THEY COME OFF MACHINE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA:  Date: 06/11/10
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06/10/20	3	- clamp was put on too tight pushing the part down causing spigot to be machined oval. 2 parts scrapp.		- scrap + destroy, replace.	J.L 06/10/20 SD	 06-10-20	 06-10-20	 06-10-20
								

NOTE: Date & initial all entries

Date: Tuesday, 10/3/2006 2:49:28 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 28825

Part Number: D3121141

Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 QC8 SECOND CHECK



Comment: SECOND CHECK

J.G 06/10/29 24

6.0 D312121 Bolt



Comment: Qty.: 1.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick:

Qty Part Number Description Batch
1 D3121-21 Bolt B28704

JL/~~SA~~ 06/10/29

7.0 D3121241 Bearing Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 24.0000 Each(s)

Pick:

Qty Part Number Description Batch
1 D3121-241 Bearing Ass B26929

JL/~~SA~~ 06/10/29

8.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3121-141 as per Dwg D3121.

JL/~~SA~~ 06/10/29

9.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

JL 06-10-31

10.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 27408

Re/10/31 (24)

11.0 QC21 FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

06/11/01

Job Completion



06/11/01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	28825
Description: Bracket		Part Number:	D3121-111
Inspection Dwg: D3121	Rev: D		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.392	+0.002/-0.000	.392	/			
0.75	+/-0.030	.749	/			
0.375	+/-0.010	.375	/			
2.14	+/-0.030	2.145	/			
0.950	+/-0.010	.950	/			
0.600	+/-0.010	.605	/			
1.96	+/-0.030	1.970	/			
0.280	+/-0.010	.280	/			
3.330	+/-0.010	3.330	/			
3.630	+/-0.010	3.632	/			
R0.25	+/-0.030	R.25	/			
R0.375	+/-0.010	R.375	/			
Ø0.201	+0.005/-0.000	.201	/			
0.100	+/-0.010	.100	/			
6.18	+/-0.030	6.18	/			
5.89	+/-0.030	5.89	/			
0.080	+/-0.010	.080	/			
0.300	+/-0.010	.298	/			
30°	+/-0.1°	30°	/			
R0.25	+/-0.030	R.25	/			
0.130	+/-0.010	.133	/			
0.381	+/-0.010	.376	/			
0.201	+/-0.010	.203	/			
0.400	+/-0.010	.400	/			
0.580	+/-0.010	.575	/			
100°	+/-0.1°	100°	/			
Ø0.32	+/-0.010	.32	/			

Measured by:	J.A	Audited by:	J.G	Prototype Approval:	N/A
Date:	06/10/26	Date:	06/10/26	Date:	N/A

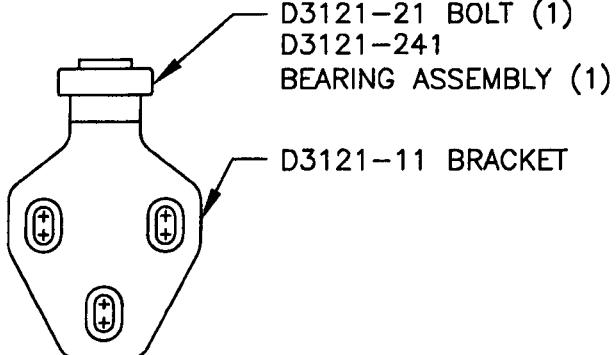
Rev	Date	Change	Revised by	Approved
A	04.01.12	New Issue P/O D3121-141	KJ/RF	
B	04.05.05	Dimensions changed/re-arranged per Dwg revision	KJ/JLM	
C	06.06.14	Dwg Rev. updated	KJ/JLM	J.G

DART

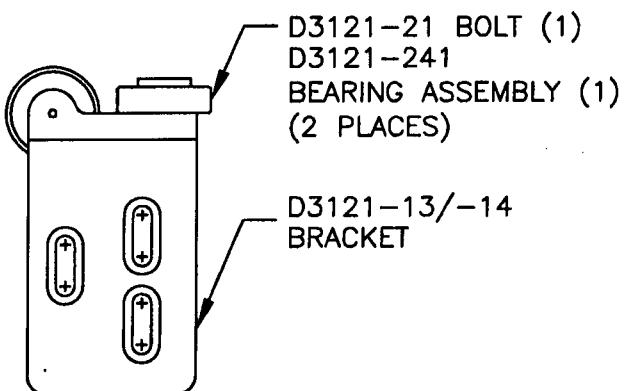
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CHECKED	APPROVED	DRAWING NO. D3121
		REV. D SHEET 1 OF 10
DATE		TITLE
06.05.17		SCALE
		1:2
A	02.04.15	NEW ISSUE
B	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
C	04.02.17	ADD CLEARANCE; USE -241 BEARING
D	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000

RELEASED

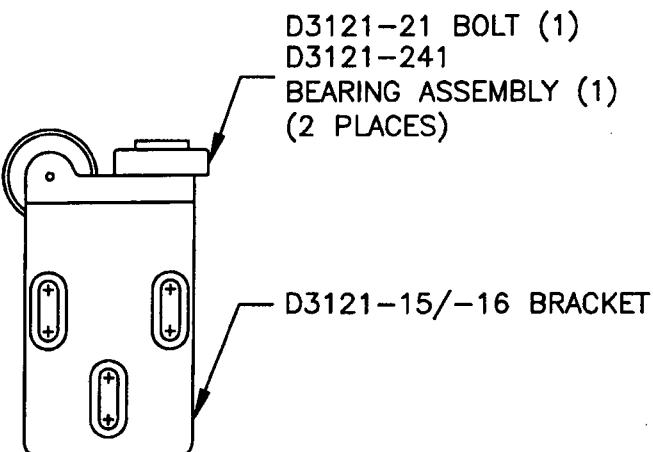
06.06.02

**D3121-041 BRACKET ASSEMBLY**

(REPLACES PREMIER P/N B30-23000-33)

**D3121-043 (SHOWN) / D3121-044 (OPPOSITE)
BRACKET ASSEMBLY**

(REPLACES PREMIER P/N B30-23000-37/-38)

**D3121-045 (SHOWN) / D3121-046 (OPPOSITE)
BRACKET ASSEMBLY**

(REPLACES PREMIER P/N B30-23000-35/-36)

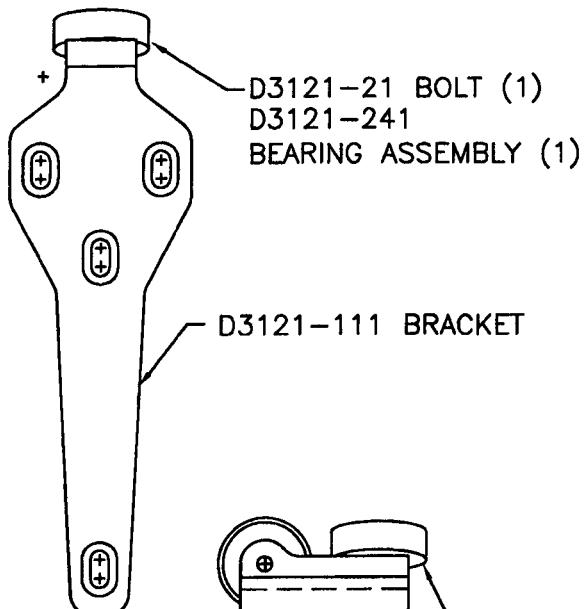
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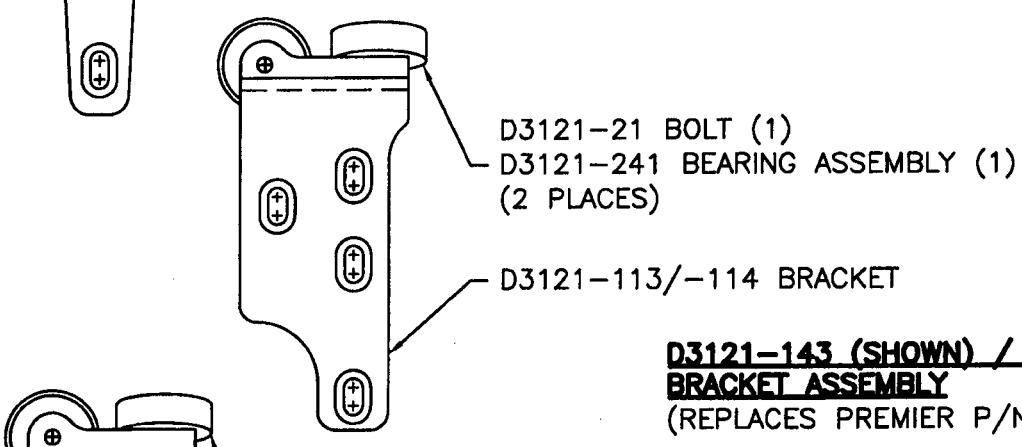
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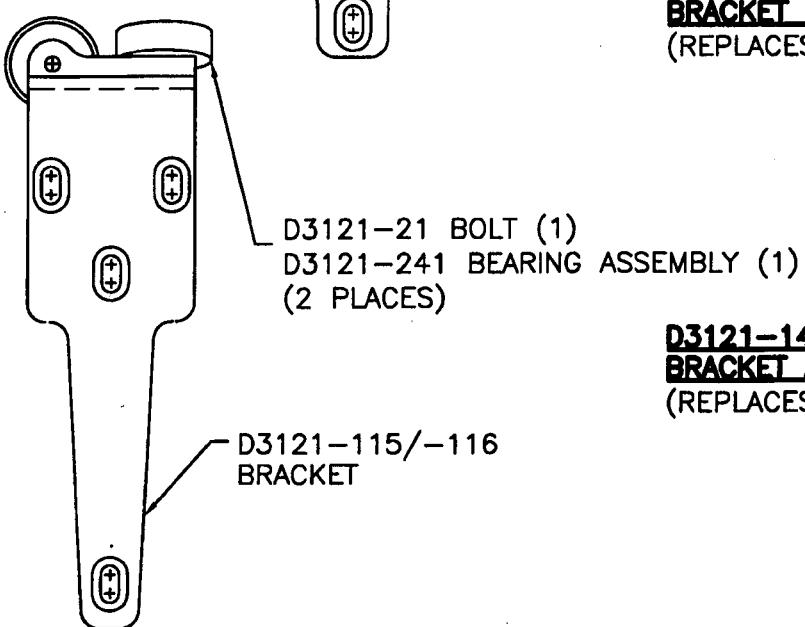
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DATE		TITLE BRACKET ASSEMBLY

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SHEET 2 OF 10
1:2

D3121-141 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23001-01)



**D3121-143 (SHOWN) / D3121-144 (OPPOSITE)
BRACKET ASSEMBLY**
(REPLACES PREMIER P/N B30-23000-03/-04)



**D3121-145 (SHOWN) / D3121-146 (OPPOSITE)
BRACKET ASSEMBLY**
(REPLACES PREMIER P/N B30-23000-05/-06)

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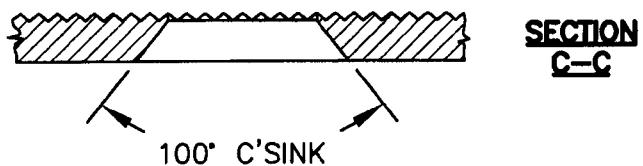
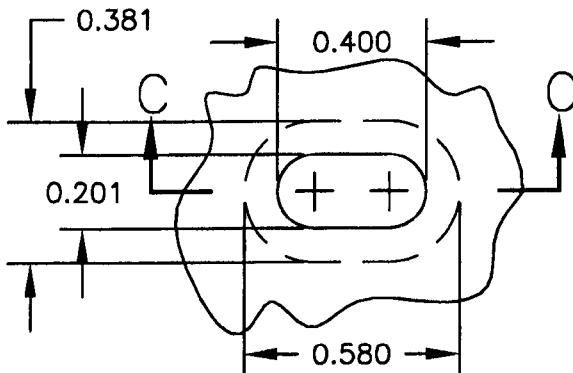
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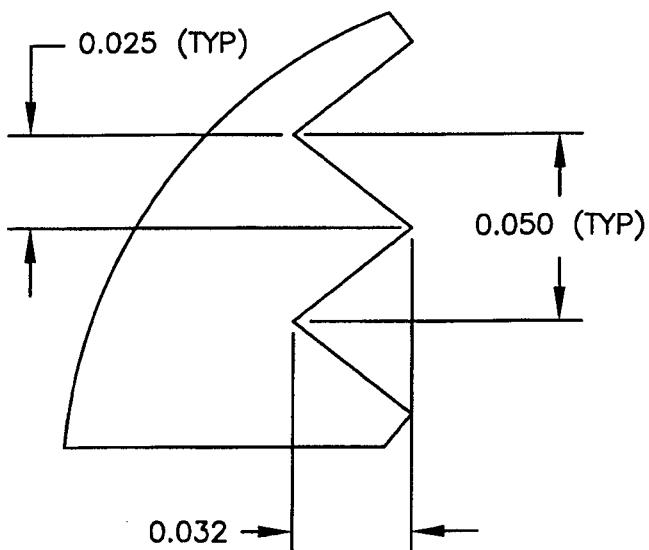
REV. D
SHEET 3 OF 10
1:1

06.05.17
BRACKET ASSEMBLY

DETAIL A:
SLOT DETAIL
SCALE 2:1
VIEW ROTATED



DETAIL B:
RIDGE DETAIL
PARTIAL SECTION
SCALE 1:20



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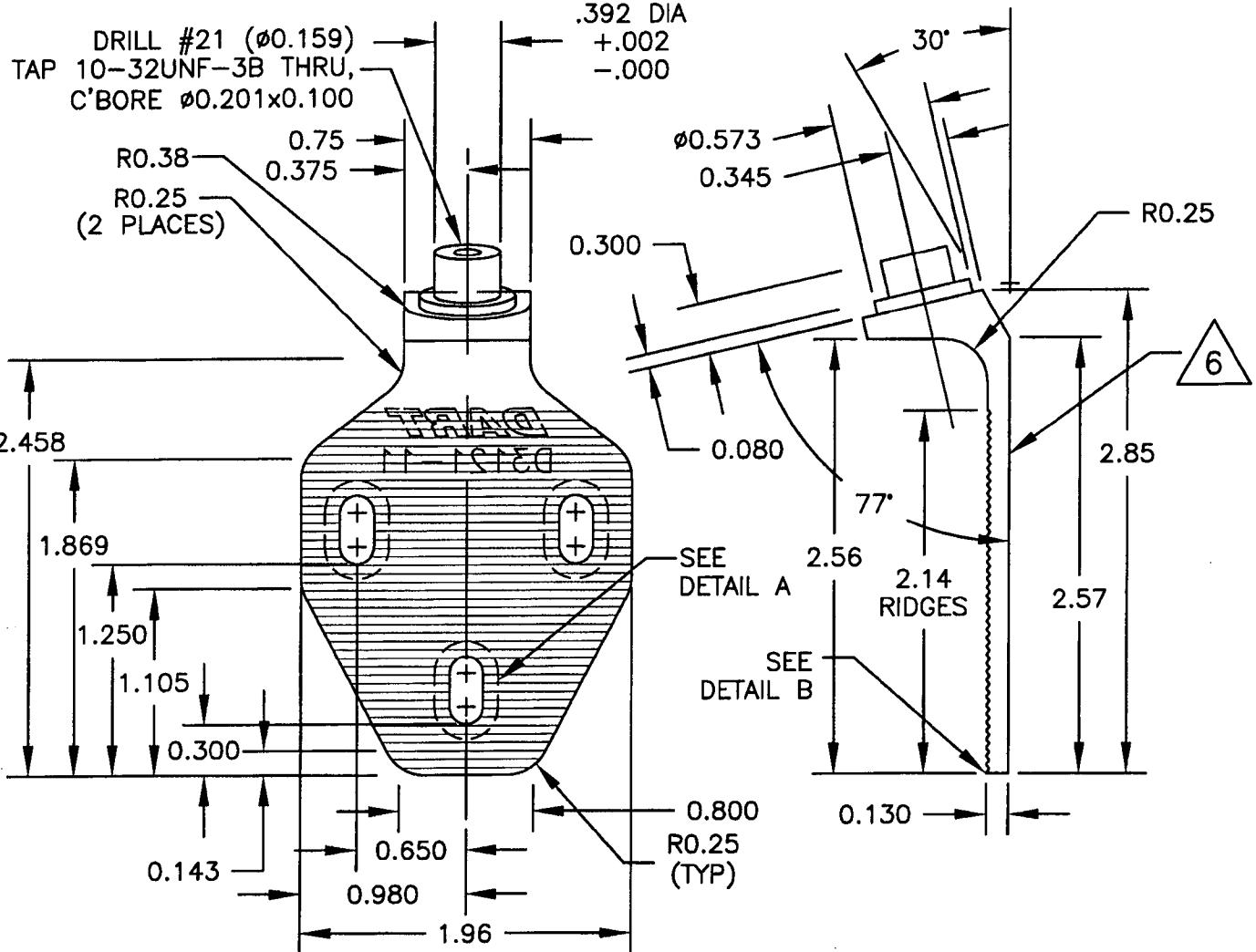
06.06.02 CB

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06.05.17		D3121	SHEET 4 OF 10
		TITLE	SCALE
		BRACKET ASSEMBLY	1:1

**D3121-11 BRACKET**

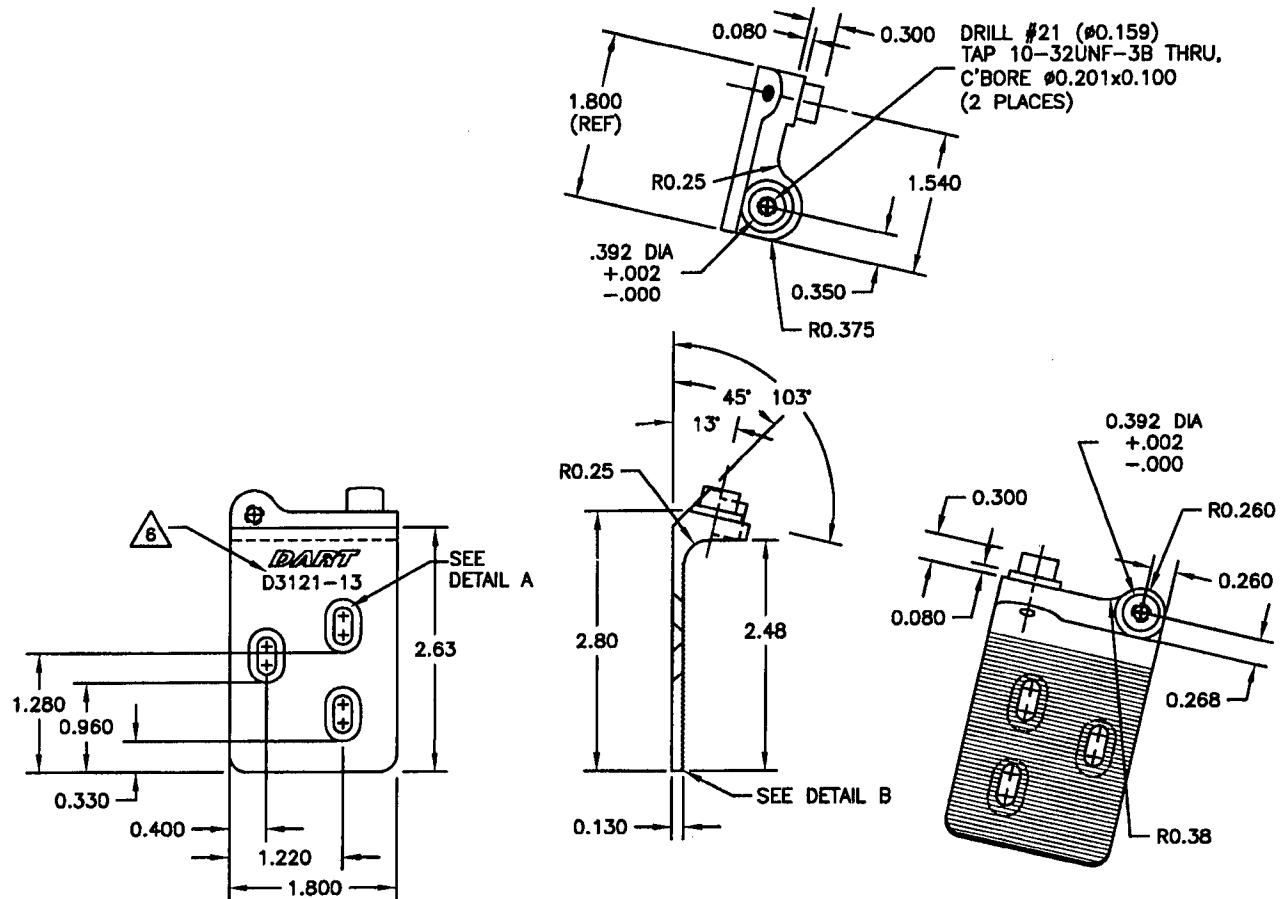
- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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DATE	06.05.17	D3121	SHEET 5 OF 10



**D3121-13 BRACKET (SHOWN)
D3121-14 BRACKET (OPPOSITE)**

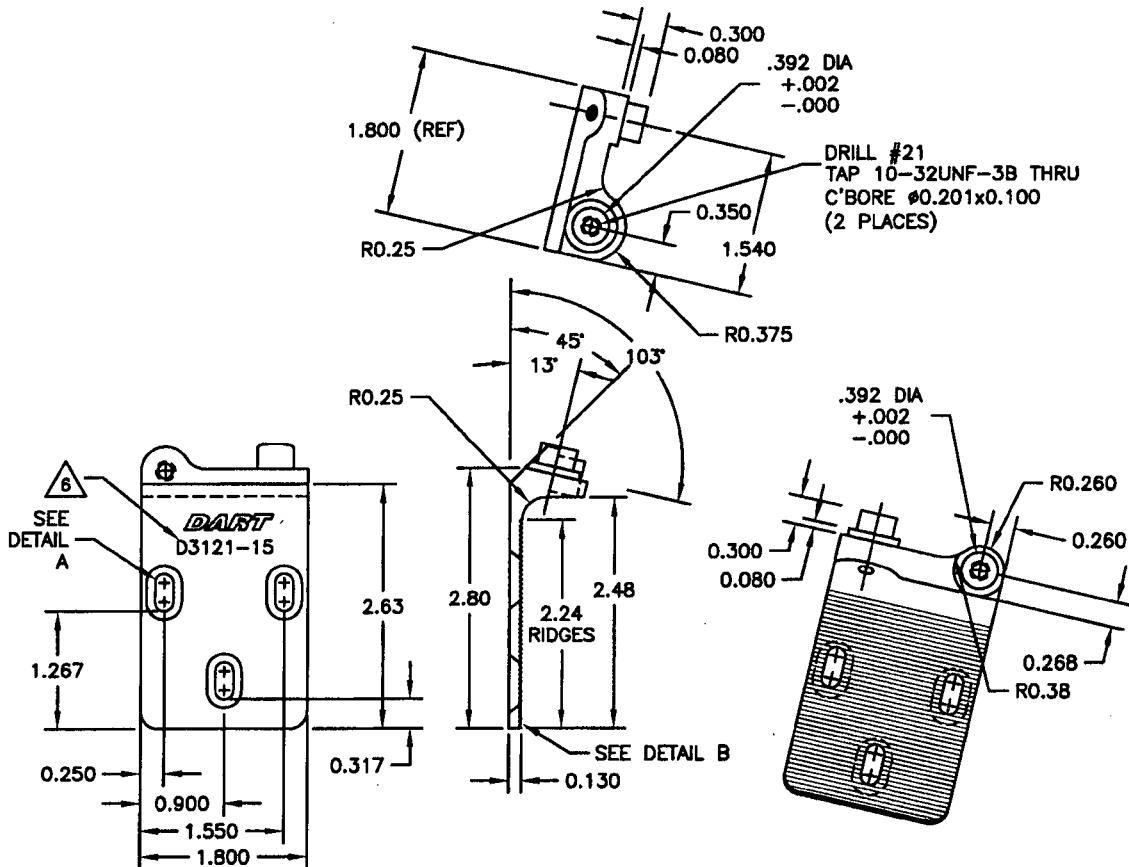
- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) UNCONTROLLED COPY
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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DATE		REV. D SHEET 6 OF 10 SCALE 1:2 TITLE BRACKET ASSEMBLY

**D3121-15 BRACKET (SHOWN)
D3121-16 BRACKET (OPPOSITE)**

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES

4) BREAK ALL SHARP EDGES 0.005 TO 0.015

5) ENGRAVE DART P/N AND LOGO AS SHOWN

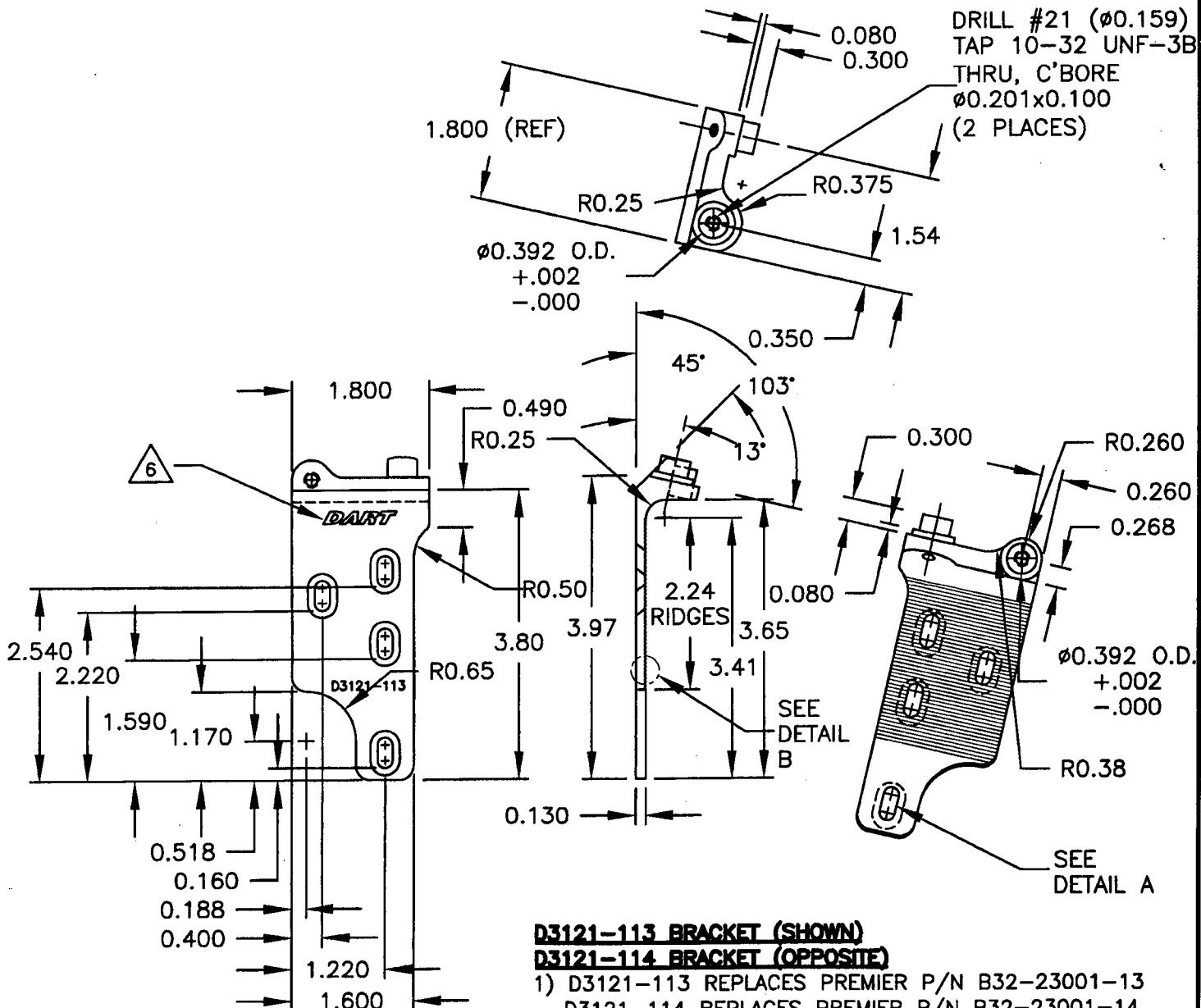
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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PART

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CHECKED <i>✓</i>	APPROVED <i>✓</i>	DRAWING NO. D3121	REV. D SHEET 8 OF 10	
DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:2	



D3121-113 BRACKET (SHOWN)
D3121-114 BRACKET (OPPOSITE)

- 1) D3121-113 REPLACES PREMIER P/N B32-23001-13
D3121-114 REPLACES PREMIER P/N B32-23001-14
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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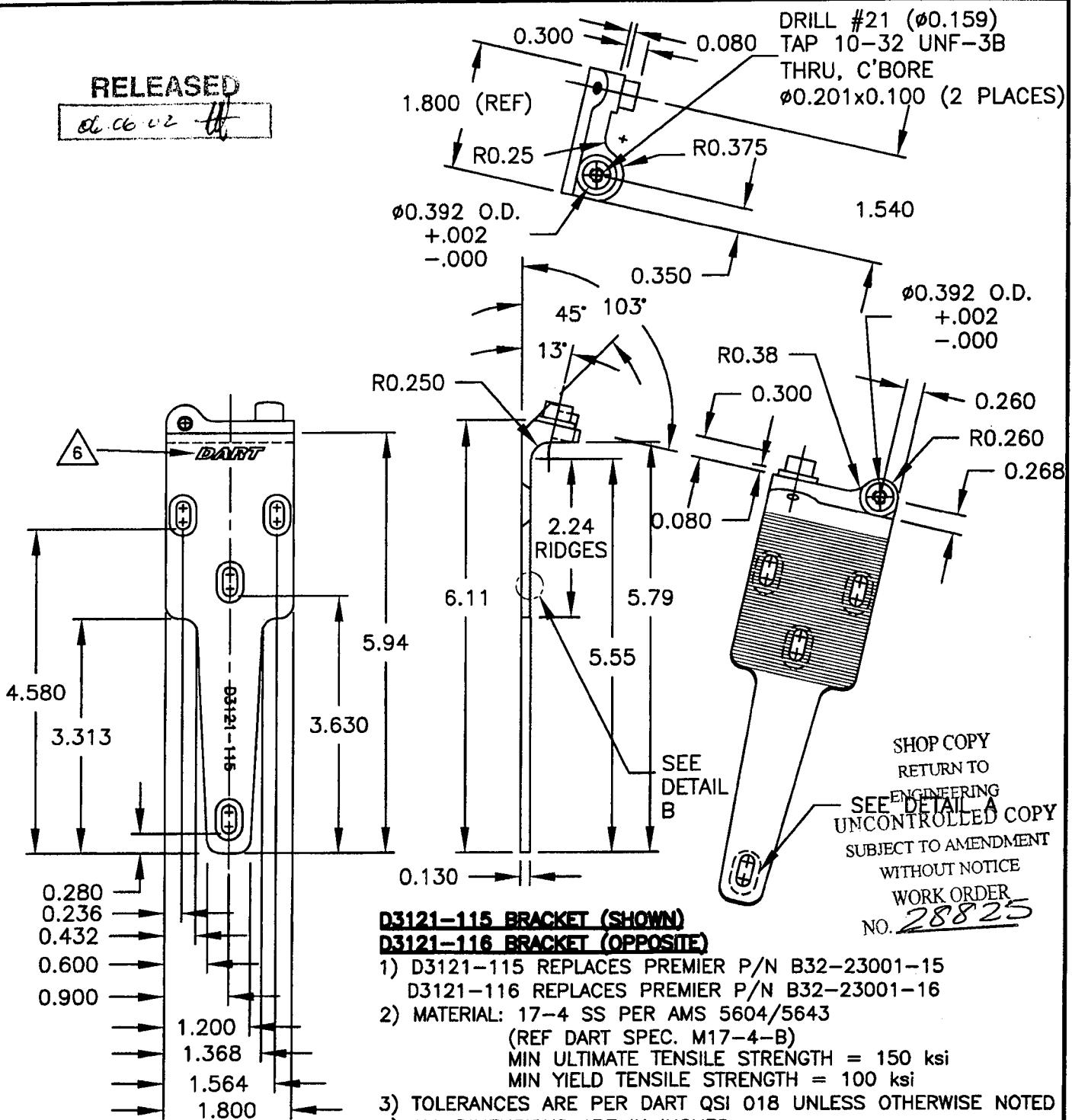
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DATE	04.02.18	TITLE	SHEET 9 OF 10 1:2

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06.06.02



**D3121-115 BRACKET (SHOWN)
D3121-116 BRACKET (OPPOSITE)**

- 1) D3121-115 REPLACES PREMIER P/N B32-23001-15
D3121-116 REPLACES PREMIER P/N B32-23001-16
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

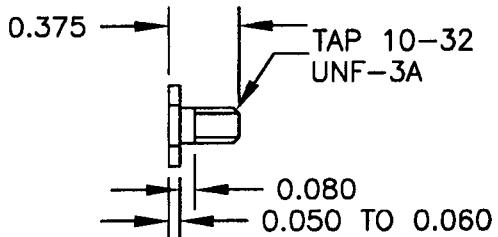
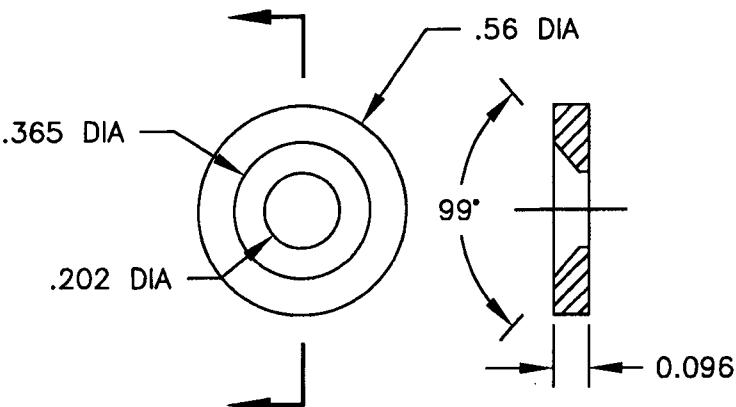
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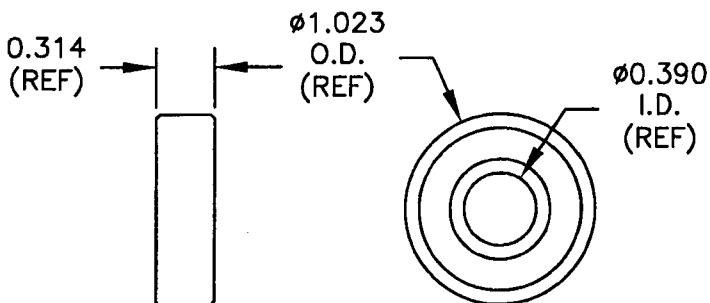
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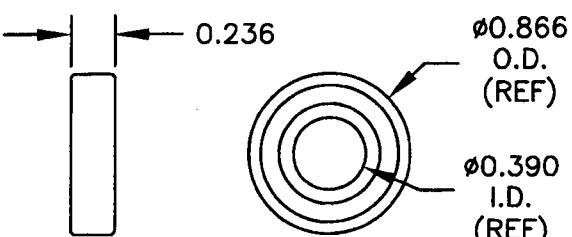
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DATE		D3121	SHEET 10 OF 10
06.05.17		TITLE	SCALE
		BRACKET ASSEMBLY	1:1

**D3121-17 WASHER (SCALE 2:1)**

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-19 BEARING (SCALE 1:1)**

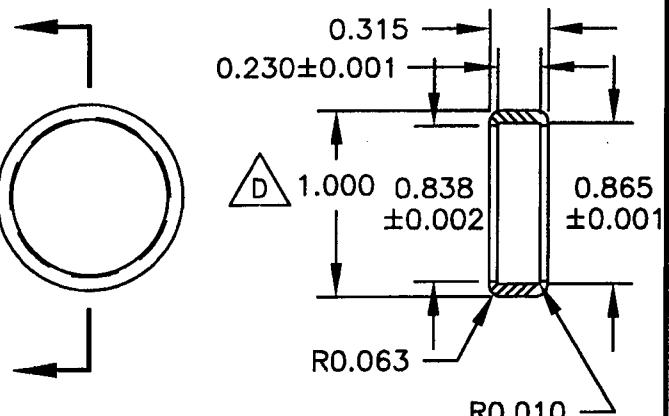
- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM
FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES

**D3121-23 BEARING (SCALE 1:1)**

- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z
OR KML P/N 6900-2Z
- 2) ALL DIMENSIONS ARE IN INCHES

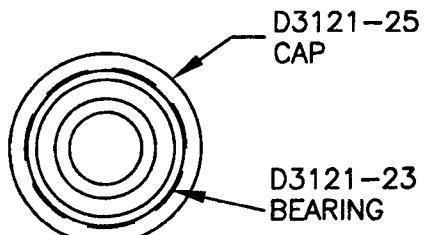
D3121-21 BOLT (SCALE 1:1)

- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

**D3121-25 CAP (SCALE 1:1)**

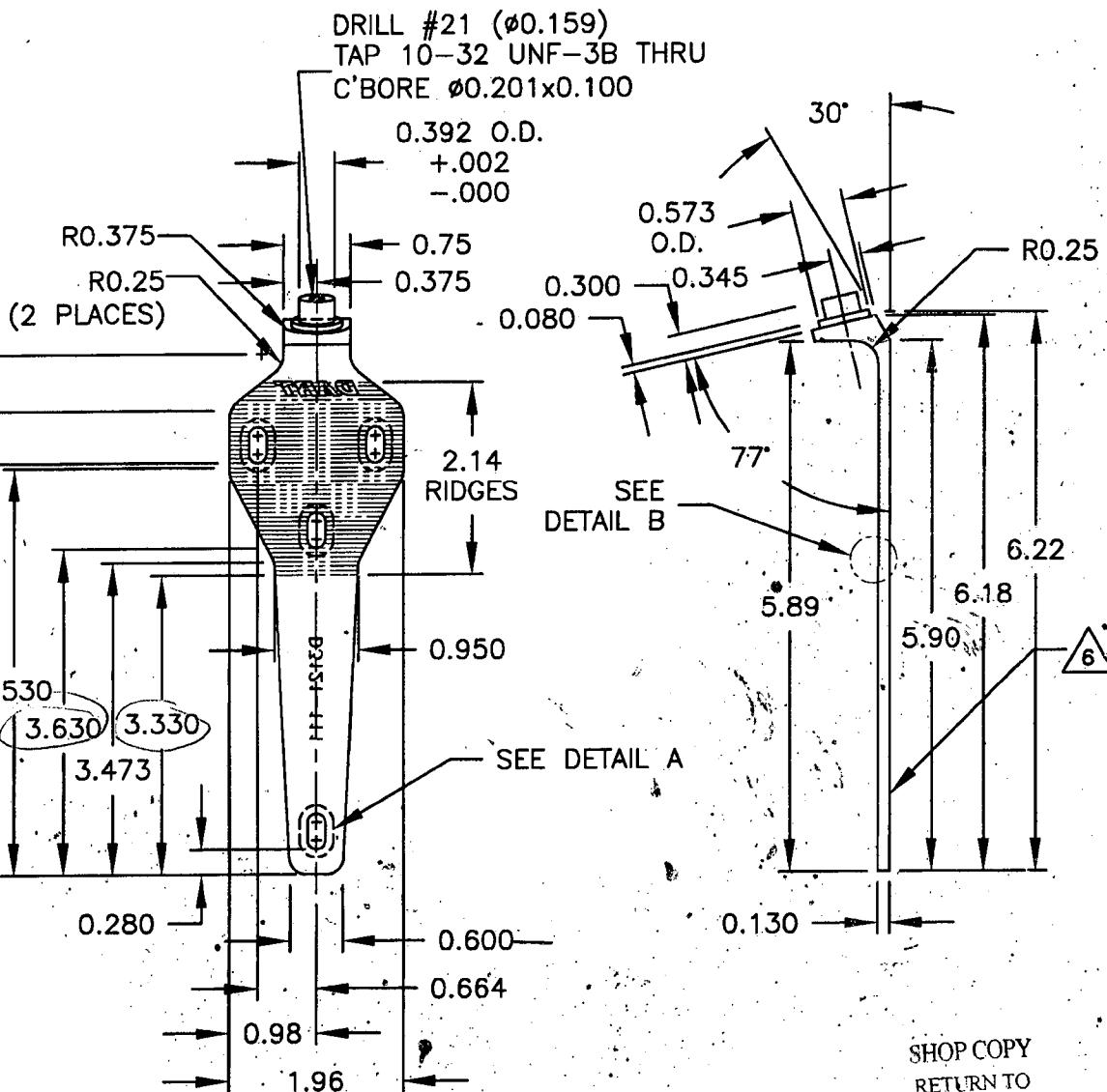
- 1) MATERIAL: DELRIN ROD, Ø1.25 (REF DART SPEC. M-DELRIN-R1.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

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NO. 28825
D3121-241 BEARING ASSEMBLY (SCALE 1:1)



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CHECKED	APPROVED	DRAWING NO. D3121
DATE		REV. D SHEET 7 OF 10 TITLE SCALE 1:2

**D3121-111 BRACKET**

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF. DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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RIDGES

